

# **Konecny Biological Services**

Biological Consulting, Research, Conservation

July 28, 2005

05-12-A

LSA Associates, Inc.  
701 Palomar Airport Road, Suite 300  
Carlsbad, California, 92009

Attn: Mr. Michael B. Trotta

Re: Results of a Focused Field Survey for the Light-footed Clapper Rail at the San Elijo Lagoon  
Visitor Center Improvement Project, San Diego County, California, 2005.

Dear Mr. Trotta:

This letter report presents the results of focused field surveys for the light-footed clapper rail (*Rallus longirostris levipes*), for the San Elijo Lagoon Visitor Center Improvement Project in coastal San Diego County, California. The light-footed clapper rail is listed as an endangered species by the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Game (CDFG).

Surveys for the light-footed clapper rail were conducted by wildlife biologist John Konecny, following methodology formulated by Konecny Biological Services (KBS) in consultation with light-footed clapper rail principal investigator Richard Zembal, and approved by the USFWS. This activity is authorized by KBS's USFWS section 10(a) permit number TE837308-3, and a CDFG Memorandum of Understanding.

## **INTRODUCTION**

The light-footed clapper rail is a slender, tawny-breasted bird with grayish edges on brown centered back feathers, olive wing coverts, vertical white bars on the flanks, a white stripe over the eye, and a partially orange bill. Light-footed clapper rail occurred historically along the coast of southern California from Carpinteria Marsh in Santa Barbara County south to San Quintín, Baja California, Mexico (Grinnell and Miller 1944, USFWS 1994).

The light-footed clapper rail is a permanent resident of coastal salt marsh traversed by tidal sloughs, usually characterized by cordgrass (*Spartina foliosa*) and pickleweed (*Salicornia* spp.) (Grinnell and Miller 1944, USFWS 1994). Light-footed clapper rails have also nested in freshwater marsh characterized by cattails (*Typha* sp.) and bulrush (*Scirpus* sp.) at Buena Vista, Agua Hedionda, Batiquitos, San Elijo, and San Dieguito Lagoons in San Diego County (Zembal *et al* 2004); and in spiny rush (*Juncus acutus*) at Naval Air Station (NAS) Point Mugu. There is very limited evidence for inter-marsh movement by light-footed clapper rails.

Populations of light-footed clapper rails have undergone decline in the United States due to the rail's limited distribution and destruction and degradation of coastal salt marsh habitat. The statewide breeding rail population in 2004 was reported to be 350 pairs in 15 marshes (Zembal *et al* 2004), the largest number of rails in recent history since 1996 (325 pairs), and the largest since the statewide census began in 1980. Ninety-two percent of these pairs were found in four coastal salt marsh complexes at the Seal Beach National wildlife Refuge (NWR), Upper Newport Bay, the Tijuana Marsh NWR, and NAS Point Mugu.

Zembal and Massey (1986) have shown that paired light-footed clapper rails can be detected “clapping” throughout the year, but have a bimodal peak in vocalizing during mid-February to mid-April and again in September to October. The initial peak in vocalizing corresponds to the onset of breeding season. In contrast to “clapping”, single male and female “keking” is highly seasonal, almost exclusively occurring between February and June.

## PROJECT LOCATION

The San Elijo Lagoon Visitor Center Improvement Project site is located in the lagoon’s West Basin, immediately south of Manchester Avenue, west of Interstate 5, and east of the Atchison, Topeka, and Santa Fe Railroad tracks in coastal San Diego County, California (Figure 1).

The survey area extends approximately 800-feet (290-meters) northwest, 800-feet southeast, and 800-feet south of the existing Visitor’s Center. Specifically, the San Elijo Lagoon Visitor Improvement Project site is located within Township 13 South, Range 4 West, and in Sections 26 and 27 of the U.S. Geological Survey Encinitas 7.5-minute quadrangle.

## PROJECT SITE DESCRIPTION

The study area for the San Elijo Lagoon Visitor Center Improvement Project, surrounding the existing Visitor’s Center is a mosaic of southern coastal saltmarsh, coastal freshwater marsh, mudflat, open water, southern willow scrub, and Diegan coastal sage scrub. A northwest to southeast running tidal channel bifurcates the study area. An existing trail forms the southern perimeter of the eastern half, and the northern perimeter of the western half.

Much of the eastern half is southern willow riparian forest and willow scrub dominated by arroyo willow (*Salix lasiolepis*), black willow (*S. goodengii*), and mule-fat (*Baccharis salicifolia*). Diegan coastal sage scrub characterized by California sagebrush (*Artemisia californica*), flat-top buckwheat (*Eriogonum fasciculatum*), and San Diego sunflower (*Encelia californica*) is present around the existing Visitor’s Center.

The western half of the study area is almost entirely composed of coastal saltmarsh, characterized by woody glasswort (*Salicornia virginica*), alkali-heath (*Frankenia salina*); intertidal mudflat; and openwater. A band of coastal freshwater marsh runs north to south, south of the Visitor’s Center. Elevation of the San Elijo Lagoon Improvement Project site is approximately six to 16-feet (two to five-meters) above mean sea level.

## METHODS

At this time, the USFWS does not have a survey protocol for the light-footed clapper rail. Surveys were conducted following a methodology formulated by KBS in consultation with light-footed clapper rail principal investigator Richard Zembal, and approved by the USFWS.

Five focused light-footed clapper rail surveys were conducted at least five days apart between May 7<sup>th</sup> and June 18<sup>th</sup>, 2005. Dusk surveys were conducted on May 7<sup>th</sup>, May 23<sup>rd</sup>, and June 9<sup>th</sup>, 2005. Dawn surveys were conducted on May 14<sup>th</sup> and June 18<sup>th</sup>, 2005. Each dawn and dusk survey lasted approximately two-hours. Dawn surveys were conducted from pre-dawn to no later than two-hours after sunrise. Dusk surveys were conducted between sunset and no more than two-hours prior to sunset. A summary of the environmental conditions on the five survey dates is provided in Table 1.

The surveys were conducted by stopping at stations approximately 50-feet (17-meters) apart along the perimeter of the survey area and listening for vocalizing light-footed clapper rails. If rails were not detected passively, a call-prompt or tape-recorded vocalization of the light-footed clapper rail “dueting” was played at 30-second intervals. A response was listened for before proceeding to the next survey station.

## RESULTS

One pair of “dueting” light-footed clapper rails was detected at the extreme southern tip of the study area. This pair was detected both passively and actively (call prompt) on four of the five surveys. A light-footed clapper rail individual was seen in the pickleweed and mudflat, north of the tidal channel on May 23<sup>rd</sup>, 2005. The other three detections (May 7<sup>th</sup> and 14<sup>th</sup>, and June 18<sup>th</sup>) were of vocalizations just south of the tidal channel. A minimum of six state-endangered Belding’s Savannah sparrow (*Passerculus sandwichensis beldingii*) territories were detected in the pickleweed marsh at the southern end of the survey area. One coastal California gnatcatcher (*Polioptila californica californica*) territory was detected in the Diegan coastal sage scrub south of the existing Visitor’s Center. The light-footed clapper rail, Belding’s Savannah sparrow, and coastal California gnatcatcher locations are shown in Figure 2. No other endangered or threatened species were detected.

## DISCUSSION

Described as “formerly common in all coastal marshes” by Grinnell and Miller (1944), the light-footed clapper rail has never been a common bird species at San Elijo Lagoon in recent history. The rail population has vacillated between a high of ten pairs in 1984; to zero in 1986, and one pair in 1985, 1994, and 2001. Seven pairs were present at San Elijo Lagoon in 2004 (Zemba *et al* 2004).

In 2005, the pair was never detected north of the trail berm. However it may be possible for dispersing young of the pair to cross through the tidal gate and into the inner coastal saltmarsh and coastal freshwater marsh. Since the disturbance area for the improvement project is relatively small and focused in the upland area near the existing Visitor’s Center, the project should not affect the light-footed clapper rail.

I certify that the information in this survey report and attached exhibits fully and accurately represent my work. The results of focused surveys for listed species are typically considered valid for one year by the USFWS and CDFG. If you have any questions or require additional information, please call me at (760) 489-5276.

Sincerely,



John K. Konecny  
Wildlife Biologist  
TE837308-3  
July 11, 2005

**REFERENCES CITED**

- Grinnell, J., and A.H. Miller. 1944. The Distribution of the Birds of California. Cooper Ornithological Club. Berkeley, California.
- U.S. Fish and Wildlife Service. 1994. Light-footed Clapper Rail. Unpublished two-page pamphlet, prepared by R. Zembal.
- Zembal, R., S. Hoffman, and J. Konecny. 2004. Light-footed Clapper Rail Management, Study, and Translocation, 2004. Report to Naval Base Ventura County, Point Mugu; U.S. Fish and Wildlife Service; and California Department of Fish and Game, for California State University, Long Beach Foundation and El Dorado Audubon Society.
- Zembal, R. and B. W. Massey. 1986. Seasonality of Vocalizations by Light-footed Clapper Rails. J. Field Ornithol., 58(1):41-48.

**Table 1. Summary of Weather Conditions During Five Light-footed Clapper Rail Surveys at San Elijo Lagoon, 2005.**

Survey #	Date	Surveyor (Species)	Time	Weather Conditions
1	05/07/05	JK (LFCR)	1705-1910	20% overcast, 60-58F, wind 7-10 mph
2	05/14/05	JK (LFCR)	0610-0825	100% overcast, 57-59F, wind 3-5 mph
3	05/23/05	JK (LFCR)	1700-1915	100% overcast, 64-62F, wind 4-7 mph
4	06/09/05	JK (LFCR)	1705-1920	10% overcast, 62-60F, wind 4-7mph
5	06/18/05	JK (LFCR)	0600-0815	100% overcast, 64-66F, wind 3-5 mph

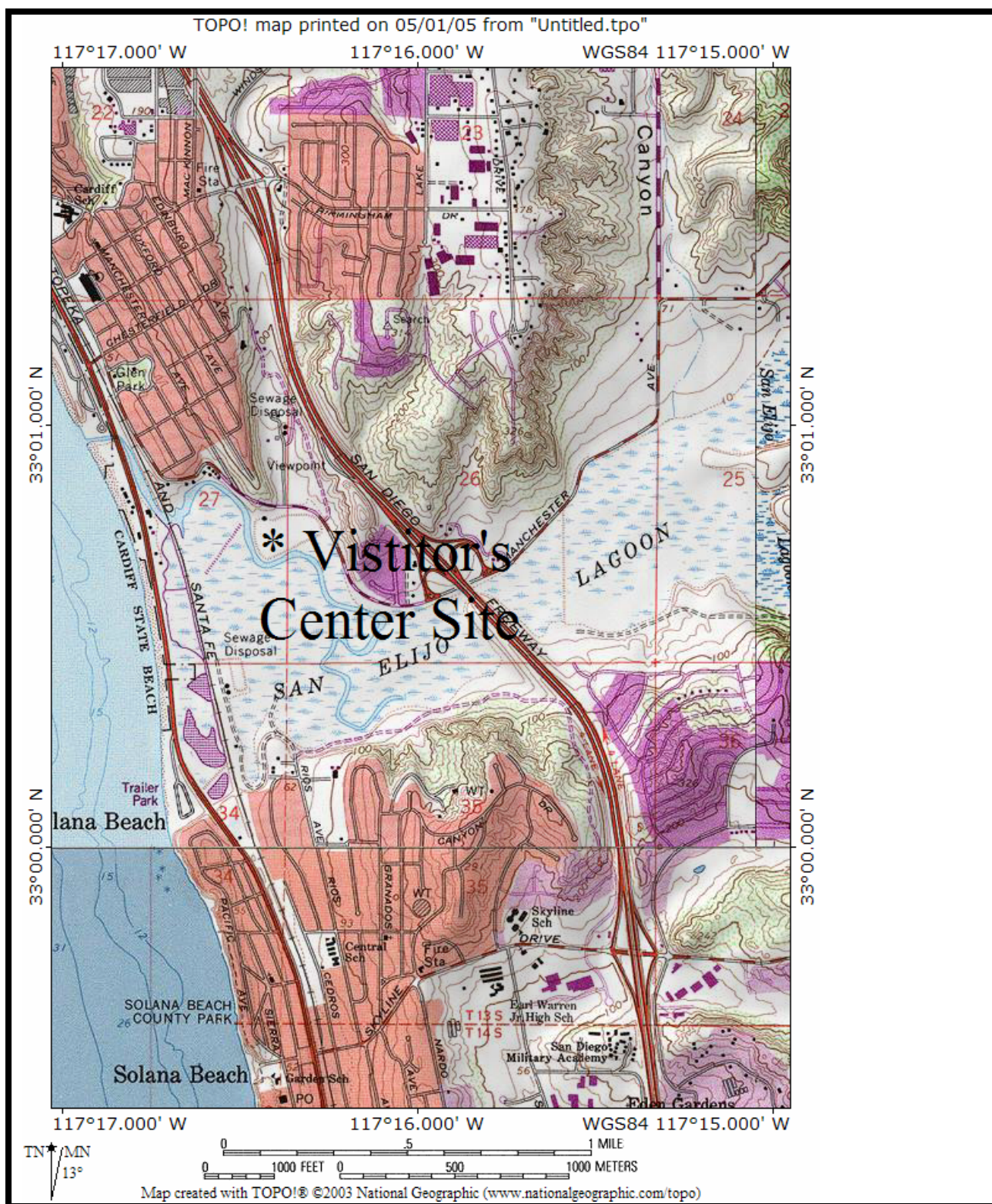


Figure 1. Location of the San Elijo Lagoon Visitor's Center Improvement Project Site, San Diego County, California, 2005.



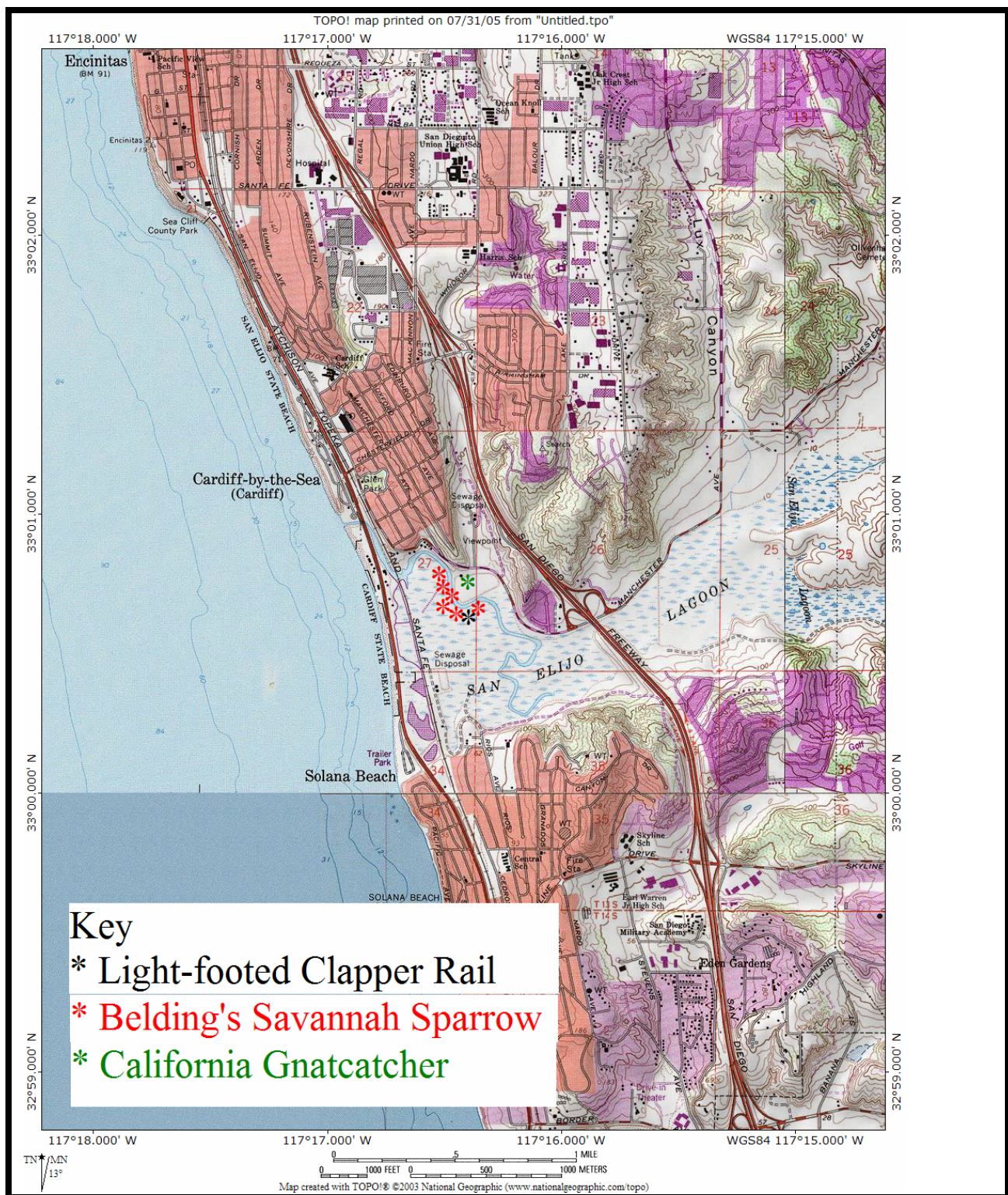


Figure 2. Location of Light-footed Clapper Rail and Belding's Savannah Sparrow Detections at the San Elijo Lagoon Visitor's Center Improvement Project Site, San Diego County, California, 2005.